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EXAMINER
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ART UNIT	PAPER NUMBER
2168	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/648,497	IDICULA ET AL.
	Examiner	Art Unit	
	Dangelino N. Gortayo	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed.
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 August 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>*1-6,8-19 and 21-30*</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>*27-30*</u> is/are allowed.

6)☒ Claim(s) <u>*1-6,8-19 and 21-26*</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>8/15/07</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   In the amendment filed on 8/7/2007, claims 6, 27 and 29 have been amended.

Claims 7 and 20 have been cancelled. The currently pending claims considered below

are Claims 1-6, 8-19, 21-30.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

3.   Claims 1-5, 12, 14-18, and 27 are rejected under 35 U.S.C. 102(e) as being

anticipated by Fox et al. (US Patent 7,146,399 B2)

As per claim 1, Fox teaches "A method of updating XML-schema-based data to

conform to an updated XML schema," (see Abstract and column 5 lines 15-25,

transformation of data from a source schema to a target schema)

"the method comprising: (a) based on a first XML schema that indicates a first

structure of one or more first XML attributes, (b) and one or more first values that

correspond to said one or more first XML attributes, and (c) a correlation between said

one or more first values and said one or more first XML attributes, generating first data

that conforms to said first structure" (Figure 6, Figure 11E, column 10 lines 50-56,

column 12 lines 31-67, column 13 lines 23-36, column 16 lines 8-27, column 17 lines

12-35, column 19 lines 42-45, column 49 line 61 – column 50 line 14, column 88 lines

37-61, wherein data conforms with a source XML schema, indicating structure,

relationships, mapping elements, and attributes, represented in a generated test

instance containing values for classes and properties as an XML document)

"and based on (a) said first data, (b) a set of one or more transformations, and (c)

a correlation between one or more of said one or more first values and one or more

second XML attributes, generating second data that conforms to a second structure of

said one or more second XML attributes;" (Figure 8B, 8C, column 13 lines 23-36,

column 15 lines 24-31, column 50 line 14 – column 51 line 15, wherein data is

transformed into a target XML schema indicating structure, relationships, and mappings

using a transformation)

"wherein said second structure is indicated by a second XML schema that differs

from said first XML schema." (column 5 lines 11-14, column 14 lines 5-18, wherein the

source XML schema and target XML schema are in different formats requiring a

document to be transformed)

As per claim 2, Fox teaches "A method of updating XML-schema-based data to

conform to an updated XML schema," (see Abstract and column 5 lines 15-25,

transformation of data from a source schema to a target schema)

"the method comprising: based on (a) a first XML schema that indicates a first structure of one or more first XML elements, (b) one or more first values that correspond to said one or more first XML elements, and (c) a correlation between said one or more first values and said one or more first XML elements, generating first data that conforms to said first structure;" (Figure 6, Figure 11E, column 10 lines 50-56, column 12 lines 31-67, column 13 lines 23-36, column 16 lines 8-27, column 17 lines 12-35, column 19 lines 42-45, column 49 line 61 – column 50 line 14, column 88 lines 37-61, wherein data conforms with a source XML schema, indicating structure, relationships, mapping elements, and attributes, represented in a generated test instance containing values for classes and properties as an XML document)

"and based on (a) said first data, (b) a set of one or more transformations, and (c) a correlation between one or more of said one or more first values and one or more second XML elements, generating second data that conforms to a second structure of said one or more second XML elements;" (Figure 8B, 8C, column 13 lines 23-36, column 15 lines 24-31, column 50 line 14 – column 51 line 15, wherein data is transformed into a target XML schema indicating structure, relationships, and mappings using a transformation)

"wherein said second structure is indicated by a second XML schema that differs from said first XML schema." (column 5 lines 11-14, column 14 lines 5-18, wherein the source XML schema and target XML schema are in different formats requiring a document to be transformed)

As per claim 3, Fox teaches "said one or more transformations are expressed in

Extensible Stylesheet Language (XSL)." (column 15 lines 34-38 and lines 44-49)

As per claim 4, Fox teaches "said one or more first values are stored in one or

more database tables." (column 9 lines 14-23, column 11 line 60 – column 12 line 3)

As per claim 5, Fox teaches "based on said first XML schema and one or more

second values that correspond to said one or more first XML elements, generating third

data that indicates said first structure and a correlation between said one or more

second values and said one or more first XML elements;" (Figure 9C, column 17 lines

53-59, column 18 lines 27-36)

"and based on said third data and said set of one or more transformations,

generating fourth data that indicates said second structure and a correlation between

one or more of said one or more second values and one or more of said one or more

second XML elements;" (Figure 9D and column 18 lines 7-14 and lines 38-52)

wherein said one or more second values differ from said one or more first

values." (column 17 lines 44-53, column 18 lines 15-25)

As per claim 12, Fox teaches "based on said first XML schema and a third XML

schema that indicates a third structure that is based on said first structure, generating a

fourth XML schema that indicates said first structure and a correlation between one or

more XML elements in said first structure and one or more XML elements in said third

structure." (Figure 9B, 9C, column 17 lines 45-59, column 18 lines 7-51)

As to claims 14-18 and 27, Fox is taught as per claims 1-5 and 12 above.

Additionally, Fox teaches a tangible computer-readable medium carrying one or more

sequences of instructions which, when executed by one or more processors, causes the

one or more processors to perform the method (column 15 lines 50-56, column 16 lines

44-58)

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 6, 8-11, 13, 19, 21-24, 26 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Fox et al. (US Patent 7,146,399 B2) in view of Lim et al. (US

Publication 2004/0064825 A1)

As per claim 6, Fox teaches based on a database table that corresponds to an

XML element indicated by said first XML schema, generating a first statement that,

when executed, will cause a database table that corresponds to said XML element to be

created. (column 5 lines 51-58 and column 29 lines 11-25, wherein SQL queries can be

used to create tables).

executing said first statement; and based on said second data, inserting one or

more of said one or more firs values into a database table that was generated as a

result of said executing said first statement (column 36 lines 40-67)

Fox does not teach a DDL statement from an XML schema.

Lim teaches a DDL statement from an XML schema (paragraph 0049, 0050,

wherein a data model can be either XML Schema or database definition language

(DDL) in a data operability system).

It would have been obvious for one of ordinary skill in the art to combine Fox's

method of converting data from one XML Schema to a different XML Schema using

SQL statements with Lim's ability to use DDL statements when translating data between

different forms. This gives the user the ability to utilize DDL statements, which can be

formed from SQL instructions. The motivation for doing so would be to provide a

standardized method of representing structure and relationships in documents using

schemas (paragraph 0024).

As per claim 8, Fox teaches generating a second statement that, when

executed, causes effects of said first statement to be reversed." (column 16 lines 66 –

column 17 line 8 and column 106 lines 39-46)

As per claim 9, Fox teaches determining whether an error has occurred in

executing said first statement; and in response to determining that said error has

occurred, executing said second statement. (column 106 lines 47-52, column 107 lines

53-67, and Table CXXXII)

As per claim 10, Fox teaches generating one or more rollback statements that,

when executed, cause said inserting to be reversed. (column 108 lines 53-63, column

109 lines 44-56)

As per claim 11, <u>Fox</u> teaches determining whether an error has occurred in said

inserting; and in response to determining that said error has occurred, executing said

one or more rollback statements. (column 109 line 44 – column 110 line 3)

As per claim 13, <u>Fox</u> teaches "based on an existing database table that

corresponds to an XML element indicated by said first XML schema, generating a

statement that, when executed, will cause a database table that corresponds to said

XML element to be created;" (column 5 lines 51-58 and column 29 lines 11-25, wherein

SQL queries can be used to create tables).

after generating said statement, performing steps comprising: deleting said first

XML schema; and deleting said existing database table; (column 106 lines 36-52,

column 107 lines 53-67, and Table CXXXII)

and after deleting said first XML schema, performing steps comprising:

registering said second XML schema with a database system; (column 19 lines 46-67)

executing said statement; and based on said second data, inserting one or more

of said one or more first values into a database table that was generated as a result of

executing said DDL statement. (column 19 lines 11-25, column 20 lines 10-24)

<u>Fox</u> does not teach a DDL statement from an XML schema.

<u>Lim</u> teaches a DDL statement from an XML schema (paragraph 0049, 0050,

wherein a data model can be either XML Schema or database definition language

(DDL) in a data operability system).

It would have been obvious for one of ordinary skill in the art to combine Fox's

method of converting data from one XML Schema to a different XML Schema using

SQL statements with Lim's ability to use DDL statements when translating data between

different forms. This gives the user the ability to utilize DDL statements, which can be

formed from SQL instructions. The motivation for doing so would be to provide a

standardized method of representing structure and relationships in documents using

schemas (paragraph 0024).

As to claims 19, 21-24 and 26, Fox is taught as per claims 6-11 and 13 above.

Additionally, Fox teaches a tangible computer-readable medium carrying one or more

sequences of instructions which, when executed by one or more processors, causes the

one or more processors to perform the method (column 15 lines 50-56, column 16 lines

44-58)

REASONS FOR ALLOWANCE

6.   The following is an examiner's statement of reasons for allowance:

Claims 27-30 are allowable over the prior art of record because the prior

art of record fails to teach or fairly suggest the procedure reading data for

different existing XML-schema-dependent instance document, wherein the

existing XML-schema-dependent instance documents do not contain tags of the

existing XML schema; and based on said data, the procedure generating, for each

particular existing XML-schema-dependent instance document of the existing

XML-schema-dependent instance documents, a corresponding XML-schema-

independent instance document that contains both (a) the tags of the existing

XML schema and (b) particular data from said particular existing XML-schema-

dependent document, thereby generating XML-schema-independent instance

documents that contain data from the existing XML-schema-independent instance

documents and conform to the existing XML schema;

7.   Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Response to Arguments

8.   Applicant's arguments, see page 11, filed 8/7/2007, with respect to the rejection

of claims 1-6, 8-19, 21-26 have been fully considered but they are not persuasive.

    a.   Examiner is entitled to give claim limitations their broadest reasonable

    interpretation in light of the specification. See MPEP 2111 [R-I]

    Interpretation of Claims-Broadest Reasonable Interpretation

    During patent examination, the pending claims must be 'given the

    broadest reasonable interpretation consistent with the specification.' Applicant

    always has the opportunity to amend the claims during prosecution and broad

    interpretation by the examiner reduces the possibility that the claim, once issued,

    will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-

    51 (CCPA 1969).

b.   Applicant's argument is stated as Fox does not teach "generating first data that conforms to said first structure" indicated in the first XML schema, which is the source XML schema.

In regards to the argument, Examiner respectfully disagrees. Fox, in column 10 lines 50-56, teaches that a test instance of a class is generated by the system, as represented in an XML document. An example of a test instance is shown in Figure 11E and column 19 lines 42-45, wherein values are contained in XML document in their respective properties drawn from data in a database table. The test instance contains the structure of the source XML schema, as indicated in column 19 line 4 – column 20 line 9. The mapping from the source schema to a target schema is shown in column 12 lines 31-67, wherein the data from a document following a source XML schema is mapped to a target XML schema through an ontology model. As shown in column 17 lines 12-34, classes and properties within documents that follow an XML schema contains specific values, which can also be an enumerated value. As stated in column 88 lines 37-62 of Fox, the test instance of a class is generated containing values of class representation, and is used in the mapping from source schemas to target schemas, as outlined in the rejection. The test instance is generated from data in a table that is structured according to the first source schema. Therefore, Fox teaches generating first data that conforms to said first structure, wherein the structure is the source XML schema.

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Hellman et al. (US Publication 2004/0216030 A1)

Dingman et al. (US Patent 6,820,135 B1)

Stoner et al. (US Patent 7,225,411 B1)

10.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dangelino N. Gortayo whose telephone number is

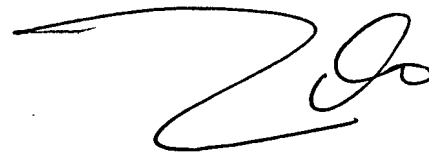(571)272-7204. The examiner can normally be reached on M-F 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tim T. Vo can be reached on (571)272-3642. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dangelino N. Gortayo   Tim T. Vo
Examiner   SPE

TIM VO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100